

## ABSTRACT

A method and an apparatus for enhancing a resolving power of a tunable optical filter. An optical input is applied to the tunable filter. An electrical signal is applied to the tunable optical filter. The electrical signal has a first component that has a first frequency and a second component that has a second frequency. The second frequency is higher than the first frequency. An optical output of the tunable optical filter is applied to a photodetector. The electrical output from the photodetector is applied to a lock-in detector. The lock-in detector receives an input from frequency doubling circuitry. An output of the lock-in detector is monitored.